

class Complex

```
private double a; // real part
private double b; // imaginary part
private double i; // complex no
```

```
public Complex (double real, im) // i
{
    a = real;
    b = im;
}
```

```
public Complex () // ii
{
    a = 0;
    b = 0;
    i = 0 + i * 0; // complex no
}
```

```
public Complex (double real) // iii
{
    a = real + i * 0;
}
```

```
public Complex (Complex obj) // iv
{
    a = obj.a;
    b = obj.b;
    i = obj.i;
}
```

```
// v
public Seta (int real)
{
    a = real;
}
```

```
public Setb (int im)
{
    b = im;
}
```

```
public double getreal ()
{
    return a;
}
```

```
public double getim ()
{
    return b;
}
```

```
public Setab (int real, int im)
{
    a = real;
    b = im;
}
```

```
public Complex add (Complex n1) // vi
{
    Complex n3 = new Complex ();
    n3.a = a + n1.a;
    n3.b = b + n1.b;
    return n3;
}
```

```
public static Complex add (Complex n1,
    Complex n2)
{
    Complex n3 = new Complex ();
    double na = n1.getreal() + n2.getreal();
    double nb = n1.getim() + n2.getim();
    n3.seta(na);
    n3.setb(nb);
    return n3;
}
```

```
public Complex subtract (Complex n1) // viii
{
    Complex n3 = new Complex ();
    n3.a = a - n1.getreal();
    n3.b = b - n1.getim();
    return n3;
}
```

```
public Complex multiply (Complex n1) // ix
{
    Complex n3 = new Complex ();
    double na = (a * n1.a) - (b * n1.b);
    double nb = (a * n1.b) + (b * n1.a);
    n3.seta(na);
    n3.setb(nb);
    return n3;
}
```